West Nile Virus Newsletter

Zoonotic Disease Program, Washington State Department of Health

April 27, 2006 Volume 4, Issue 2

Purpose

To keep our partners and other interested entities informed about West Nile virus (WNV)

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Wet season may lead to lots of mosquitoes

Spokane Regional Health District, News Release, April 6, 2006

SPOKANE, WA – The Spokane Regional Health District is encouraging people to protect themselves and their families from mosquitoes by reducing mosquito habitat. A wetter than normal January, February and March may lead to more mosquito breeding habitat. Small amounts of stagnant water provide an ideal location for mosquitoes to lay their eggs, producing adult mosquitoes in about one week.

"I strongly urge residents to take personal responsibility for reducing mosquito habitat around their homes and adopt simple precautions to minimize the potential for mosquito bites."

– Dr. Kim Marie Thorburn, Health Officer for the Spokane Regional Health District

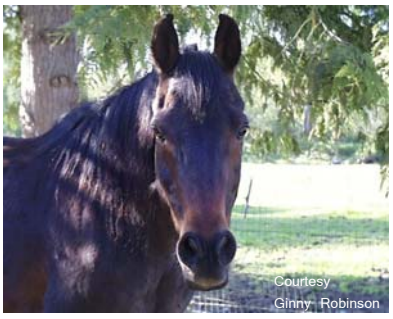
Mosquito species known to carry West Nile virus have been found in Spokane and in counties throughout Washington State.

View the Spokane Regional Health District news release at http://www.srhd.org/information/news/newsdisplay.asp?id=199.

State veterinarian urges vaccination of horses for WNV

Washington State Department of Agriculture, News Release, April 24, 2006

OLYMPIA – Although the first confirmed case of West Nile virus (WNV) in a Washington state horse didn't occur until September last year, there is no guarantee it will take that long for WNV to show up in the 2006 mosquito season, the state veterinarian said today.



Dr. Leonard Eldridge is urging horse owners to vaccinate their horses against WNV as soon as possible. He also is recommending that horse owners take preventive measures to reduce opportunities for mosquitoes infected with the virus to bite horse populations.

"Vaccinating your horse or getting the proper booster shots promptly is the best way to help protect your animal," Eldridge said. "A spring dose of vaccine, even in previously vaccinated horses, is necessary to maintain protective immunity in most horses. It's also important to take precautions on your property such as removing standing water from yards and barns and changing water in troughs or bird baths that could be a source of mosquito breeding."

The vaccine requires two doses four to six weeks apart, and immunity will not be achieved until five weeks after the second vaccine. An annual booster shot should be considered prior to the start of the mosquito season.

Subscribe, Submit Articles, Suggestions

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Web Resources

Washington State Department of Health
www.doh.wa.gov/wnv

Centers for Disease Control and Prevention
www.cdc.gov/ncidod/dvbid/westnile

US Geological Survey & CDC ArboNET maps
http://westnilemaps.usgs.gov/index.html

Washington State University Cooperative Extension
www.wnv.wsu.edu

Washington State Department of Agriculture
www.agr.wa.gov/FoodAnimal/AnimalHealth/Diseases/WestNileVirus/default.htm

Northwest Links

Idaho Department of Health & Welfare
www.westnile.idaho.gov

Oregon Department of Human Services
http://egov.oregon.gov/DHS/ph/acd/diseases/wnile/survey.shtml

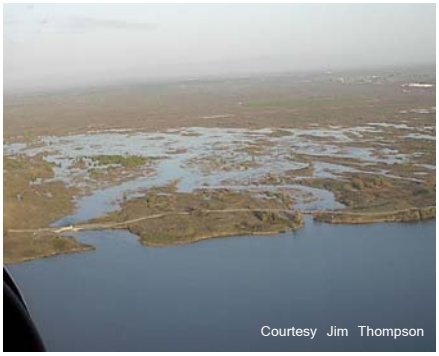
British Columbia Center for Disease Control
www.bccdc.org

WNV is fatal in 30 to 40 percent of all horses that contract it, although most horses do not become ill and show no symptoms at all. Those that do become ill show signs such as loss of coordination, loss of appetite, confusion, fever, stiffness and muscle weakness, particularly in the hindquarters.

Eldridge urges horse owners to work with their veterinarians for advice on WNV and other health issues. Veterinarians who learn of potential WNV cases should contact the State Veterinarian's Office at (360) 902-1881.

Methoprene concentrations in surface water samples from Grant County Mosquito Control District No. 1

The Department of Ecology monitored methoprene concentrations in surface water samples from Grant County Mosquito Control District No. 1 during the 2005 application season. Methoprene (Altosid) is a mosquito larvicide that mimics a juvenile growth hormone, thereby preventing maturation into adults.


Courtesy Jim Thompson

Methoprene was detected in only 6% of the samples collected (4 out of 68). The maximum concentrations recorded were in the range of 0.1 - 0.6 ug/L (parts per billion). A breakdown product, methoprene acid, was also analyzed and only detected in one instance.

The results are briefly compared to available water quality criteria and to data from similar monitoring programs. View the Department of Ecology publication at http://www.ecy.wa.gov/biblio/0603001.html.

Mosquito misting systems – popular but controversial

Mosquito misting systems have become a popular item for homeowners in many parts of the country attracted to the marketing of better enjoyment of their backyards and alleviated fears from diseases such as West Nile virus. However, these systems have many regulators, public health officials, environmentalists, and mosquito control professionals worried.


Misting nozzle

The outdoor mosquito mist system consists of a series of small nozzles attached to hoses that are situated around the landscape, on the roof, or along a fence. The time-released system sprays a fine mist of insecticide, typically pyrethrin, into the air. Systems start at about $800, which doesn't include the cost of the insecticide.

The long list of concerns raised over these systems include: certification of equipment installers, pesticide product labeling for such applications, homeowner liability, consumer access to the insecticide label information, security of on-site chemical containers, insect resistance, advertising claims, acute and chronic health

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effects, efficacy of the products to control the target pests, non-target damage, drift to nearby residents, right-to-know outdoor posting of applications in applicable states, and the systems' conflict with Integrated Pest Management principles.

These concerns prompted about 100 experts representing state pesticide regulators, national pest control associations, EPA, CDC, and the mosquito misting manufacturers to meet at a stakeholder forum in Washington D.C. A workgroup was formed to help begin addressing the various concerns.

Presentations from the stakeholders at the recent mosquito misting forum can be viewed at http://www.npmapestworld.org/MMS/.

The University of Illinois Extension, Pesticide Safety Education Program offers more information regarding the concerns over mosquito misting systems at http://www.pesticidesafety.uiuc.edu/newsletter/html/200601b.html.

Assessing capacity for surveillance, prevention, and control of WNV infection–United States, 1999 and 2004

CDC's Morbidity and Mortality Weekly Report, February 17, 2006 / 55(06);150-153

The findings of the Council of State and Territorial Epidemiologists survey demonstrate that the capacity of WNV surveillance systems, technical expertise, laboratory capacity, and prevention programs have developed substantially since 1999. This progress can be attributed primarily to congressionally appropriated funds and technical guidance from CDC.

The capacities that state and local health departments chose to emphasize or develop were based on the needs of their particular jurisdictions; however, establishment of this national program has enhanced viral laboratory capacity, veterinary disease surveillance capacity, and surveillance for vector-borne diseases other than WNV disease. For example, in 2004, states indicated improved access to medical entomologists and wildlife biologists compared with 1999. In addition, more state health departments currently have a designated state public health veterinarian. Finally, nearly all responding states had enhanced their capacity to conduct surveillance for other mosquito-borne diseases.

View the complete report at
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5506a2.htm.

Have an idea for or an opinion about the *West Nile Virus Newsletter*? We want to hear from you!

How can we better serve you, the reader? Tell us what you like, what you don't, and what you'd like to see more of in the WNV Newsletter. Submit your comments, suggestions, questions, and concerns to Ben Hamilton at benjamin.hamilton@doh.wa.gov.